



Environmental Fact Sheet

Intelligent Transportation Systems

ITS applies new communication, monitoring, and computer technologies to improve our national transportation systems and to lessen the need to build new roads.

What is ITS?

ITS stands for Intelligent Transportation Systems. ITS can help people and goods move more safely and efficiently by providing information links between travelers, vehicles, and infrastructure. The goal of ITS is to apply modern computer and communications technologies in transportation systems, resulting in improved mobility, safety, air quality, and productivity. ITS products and services:

- collect and transmit information on traffic conditions and transit schedules to aid travelers before and during their trips
- relieve congestion by reducing the number of traffic incidents, clearing them more quickly when they occur, rerouting traffic flow around them, and automatically collecting tolls
- raise the productivity of commercial, transit, and public safety fleets by using automated tracking, dispatch, and weigh-in-motion systems
- help drivers in reaching a desired destination with in-vehicle navigation systems

- benefit public and government agencies at all levels through lower costs, enhanced services, and a healthier environment for all

Why Do We Need ITS?

Congestion. Inefficiency. Crashes. Pollution. These are all too often associated with today's transportation infrastructure—and everyone knows it. Traffic congestion costs the American people billions each year in lost productivity. Crashes claim thousands of lives and injure millions. Vehicle emissions are a major cause of air pollution. Trucks, buses, and cars idling in traffic emit millions of tons of pollutants each year and waste billions of gallons of fuel.

For years, we have sought to solve many of these problems by merely building more highways. Pouring additional asphalt and concrete added capacity but did not address the underlying problems of our transportation system. Fulfilling the need for a national system that is both economically sound and environmentally efficient requires a new way of solving our transportation problems.

What Can ITS Do For the Environment?

An area's transportation system has a big impact on its air quality. The way an area chooses to use ITS technologies in meeting transportation needs can influence that impact.

In the short run, using ITS technologies to increase speeds and capacity on severely congested highways can reduce emissions of some pollutants. However, there is a point at which higher speeds cause pollutant emissions to increase again. Moreover, as less congestion encourages more driving, the impact of increased traffic volumes on air quality is clearly negative.

ITS technologies can reduce congestion without encouraging more traffic by improving public transit and other alternatives to driving alone. The U.S. Environmental Protection Agency is working closely with the U.S. Department of Transportation (DOT) to evaluate the environmental impacts of the different ITS technologies in several areas of the country. This will give areas considering ITS the information they need to choose technologies that will improve air quality. These evaluations are scheduled for completion in 1999.

Where Did This Program Come From?

In 1991, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA). ISTEA provided funding to DOT for ITS research, development, testing, and implementation. The program has received about \$200 million/year since then.

Who Will Carry Out ITS?

The various elements of ITS are being used by a broad range of state and local government agencies, transportation service providers, private entities, and through the consumer markets for electronics, automobiles, and information services. No part of ITS will be owned or operated by the federal government; however, federal funding will play a large role in ITS development by funding state and local transportation improvements. A few of the areas already using ITS include:

- for personal travel improvements: Atlanta, Seattle, Phoenix, San Antonio, and the metropolitan area of New York, New Jersey and Connecticut
- for commercial vehicle improvements: Connecticut, Kentucky, Michigan, Minnesota, Colorado, California, Oregon and Washington

For Further Information

For more information on intelligent transportation systems, please contact the DOT Intelligent Transportation Systems Joint Program Office (ITS JPO):

Phone: (202) 366-9536

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Information regarding Intelligent Transportation Systems is available electronically on the Internet World Wide Web (WWW) at:

<http://www.its.dot.gov>.